

**REMARKS**

Claims 76-79 and 81-84 are pending in the application

Claim 76-79 and 81-84 are objected to because of various informalities.

Claims 78 and 79 are rejected under 35 U.S.C. § 112, first paragraph.

Claims 76-79 and 81-84 are rejected under 35 U.S.C. § 112, second paragraph.

Claims 76-79 and 81-84 are rejected under 35 U.S.C. § 101.

Claims 82-84, are rejected under 35 U.S.C. § 102(a) as being anticipated by McMillan and Amla, Automatic Abstraction without Counterexamples, (McMillan hereinafter).

Claims 81, 76 and 77 are rejected under 35 U.S.C. § 102(a) as being anticipated by McMillan et al., (McMillan (2) hereinafter), U.S. Patent 7,406,405.

Claims 78 and 79 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McMillan (2) as applied to claim 81 above taken in view of Marques-Silva and Sakallah, (Marques-Silva hereinafter), GRASP: A Search Algorithm for Propositional Satisfiability (see reference [6] listed in the application description pg. 3 or PTO-892 Notice of Reference Cited dated 5/15/07).

The Applicants request reconsideration.

***Claim Objections***

The Applicants respectfully submit that the Examiner is believed to be incorrect in his position regarding claims 81 and 82. The Examiner refers to steps in these claims where it is determined whether a property is satisfied or not and the further steps are implemented if the

property is satisfied. Therefore, the Examiner incorrectly concludes that the claim is indefinite or incorrect as far as the situations in which the property is not satisfied.

This analysis and the conclusion by the Examiner is believed to be incorrect. To determine if the claim reads on an alleged infringing method or process, all the steps in the claim must be implemented by the alleged infringing method or process. In this case the claim determines if the property is satisfied. If it is satisfied, the rest of the steps are implemented. If not, it is simply the case that the rest of the steps are not implemented. Therefore, in such a case, the allegedly infringing method or process is not within the scope of the claims. The Examiner is incorrect in concluding that the claimed method is incorrect or indefinite as far as the alleged infringing methods in which the property is not satisfied.

The Examiner is requested to withdraw this objection.

***Oath/Declaration***

The Examiner's designation in the Office Action Summary that the Oath or Declaration is objected is believed to be incorrect. In fact, in the response to arguments section on page 12, the Examiner notes in item 54 that all the deficiencies in the oath have been corrected.

***Rejections based on Section 112, first paragraph***

The Examiner contends that the operator "!" is not defined in the Specification. The Applicants respectfully submit that the "!" operator is well-known in computer science to represent a logical negation. For example, !A means NOT A. The Examiner is referred to any

standard textbook in C or C++ which will define this operator. The Examiner is requested to withdraw the section 112, first paragraph rejection of claims 78 and 79.

***Rejections based on section 112, second paragraph***

The Applicants respectfully submit that the amendments to the claims should overcome the section 112, second paragraph issues raised by the Examiner.

***Rejections based on section 101***

The Examiner contends that the claimed methods are not statutory under section 101. One of the conditions that the Examiner cites is that the claimed process must be tied to another statutory class. The Applicants respectfully submit that the claimed method is intimately tied to an electronic circuit. An electronic circuit is an apparatus and is within a clearly defined statutory class. The Applicants respectfully amend the claims to clarify that the method is closely tied to an electronic circuit.

Regarding the Examiners contention that claim 81 does not produce a result in case the abstract model is not derived, the Examiner is referred to the above section related to claim objections.

***Claim Rejections Under 35 U.S.C. § 102(a)***

The claims have been amended to overcome the rejections based on McMillan. In case, the Examiner continues to maintain the rejection, the Applicants will likely ante-date the cited references by offering proof of earlier invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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